

April 22, 2019

Mr. David Albright
U.S. Environmental Protection Agency, Region 9
Drinking Water Protection Services, WTR-3-2
75 Hawthorne Street
San Francisco, California 94105-3901

**Re: Mechanical Integrity Demonstrations, PTF Observation Wells
Production Test Facility, UIC Permit No. R9UIC-AZ3-FY11-1
Florence Copper, Florence Arizona**

Dear Mr. Albright:

Florence Copper Inc. (Florence Copper) has completed temperature decay logs (temperature logs) at the Production Test Facility (PTF) Observation wells in support of Part II Mechanical Integrity Demonstration. The tests were completed in accordance with Part II.E.3(a)(ii)(b) and Appendix D of the Underground Injection Control Permit No. R9UIC-AZ3-FY11-1; Conditional Authorization to Commence Injection for the PTF letter dated December 14, 2018; and the Approval of Temperature Logging Procedure for the PTF letter dated January 31, 2019.

Prior to conducting the temperature decay logs all downhole equipment was removed from the well. Low flow pumping equipment was removed from each observation well the day before temperature logging was conducted, with work being completed no later than 7:00 p.m. each day. Temperature logging was started after 8:00 a.m. the following day, ensuring a shut in time of at least 13 hours at each observation well. Shut in times reported on the temperature logs indicate time between runs. Below is a summary of temperature decay logging results.

O-01 Temperature Logging

Prior to conducting the temperature decay log all downhole equipment was removed and the well was shut in for more than 12 hours. Temperature logs were run on the well at 8:10 a.m. and 1:30 p.m. on February 28, 2019. The results of the temperature logging are included in Attachment 1.

O-02 Temperature Logging

Prior to conducting the temperature decay log all downhole equipment was removed and the well was shut in for more than 12 hours. Temperature logs were run on the well at 9:45 a.m. and 2:35 p.m. on February 8, 2019. The results of the temperature logging are included in Attachment 1.

O-03 Temperature Logging

Prior to conducting the temperature decay log all downhole equipment was removed and the well was shut in for more than 12 hours. Temperature logs were run on the well at 10:55 a.m. and 3:30 p.m. on February 8, 2019. The results of the temperature logging are included in Attachment 1.

O-04 Temperature Logging

Prior to conducting the temperature decay log all downhole equipment was removed and the well was shut in for more than 12 hours. Temperature logs were run on the well at 12:10 p.m. and 2:35 p.m. on February 8, 2019. The results of the temperature logging are included in Attachment 1.

O-05B Temperature Logging

Prior to conducting the temperature decay log all downhole equipment was removed and the well was shut in for more than 12 hours. Temperature logs were run on the well at 1:00 p.m. and 5:25 p.m. on February 12, 2019. The results of the temperature logging are included in Attachment 1.

O-06 Temperature Logging

Prior to conducting the temperature decay log all downhole equipment was removed and the well was shut in for more than 12 hours. Temperature logs were run on the well at 11:50 a.m. and 4:15 p.m. on February 12, 2019. The results of the temperature logging are included in Attachment 1.

O-07 Temperature Logging

Prior to conducting the temperature decay log all downhole equipment was removed and the well was shut in for more than 12 hours. Temperature logs were run on the well at 10:35 a.m. and 3:00 p.m. on February 12, 2019. The results of the temperature logging are included in Attachment 1.

Summary

The temperature logging results for all observation wells show no anomalies that would indicate that there is flow behind the well casing. The temperature logs for each logging event are parallel to each other in the cemented zone and there is little to no differential between the two runs in each logging event.

Please contact me at 520-374-3984 if you require any additional information.

Sincerely,
Florence Copper Inc.

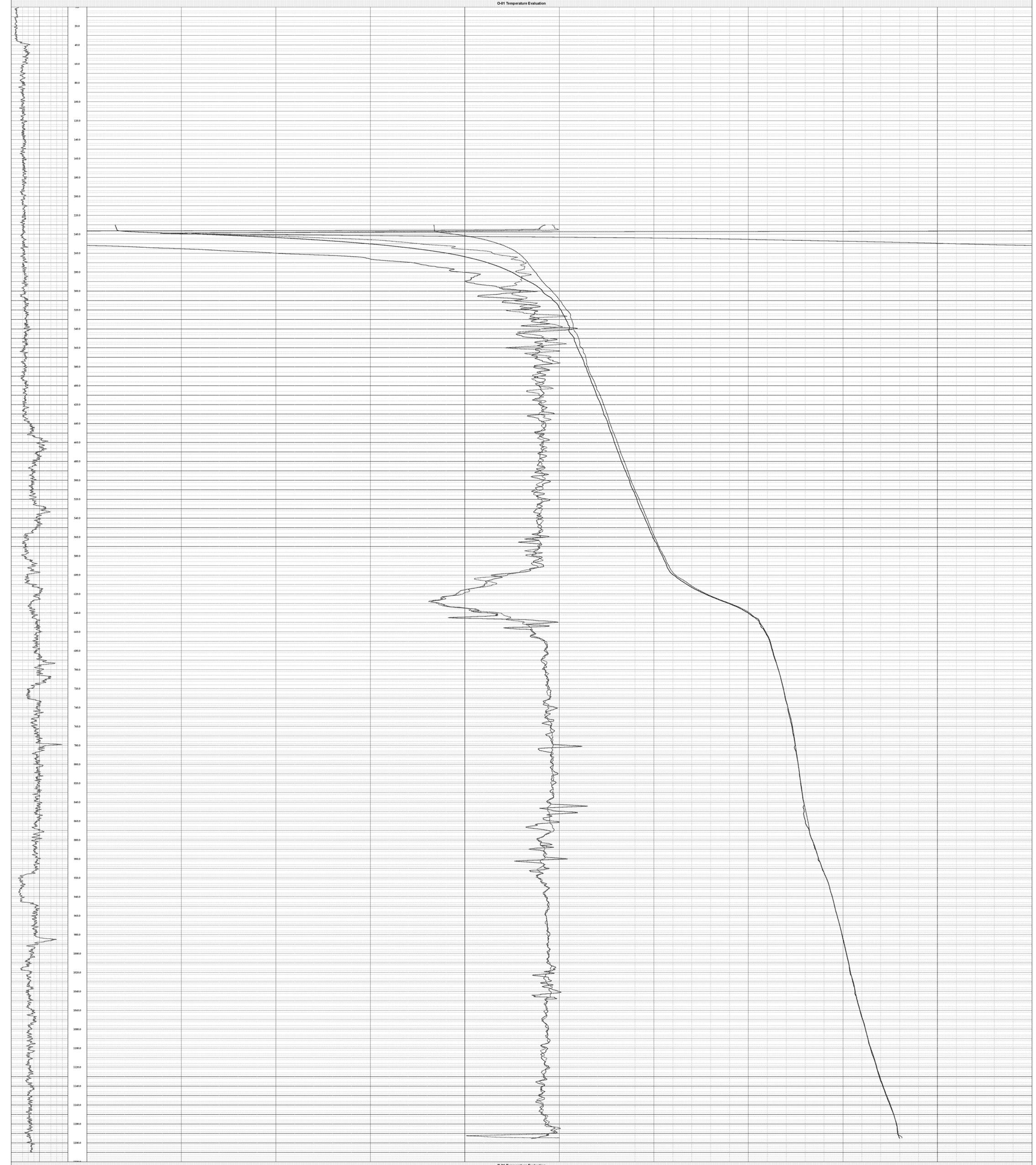
Daniel Johnson
Vice President – General Manager

Enclosure:
Attachment 1 – Temperature Logs

cc: Maribeth Greenslade, ADEQ
Nancy Rumrill, USEPA

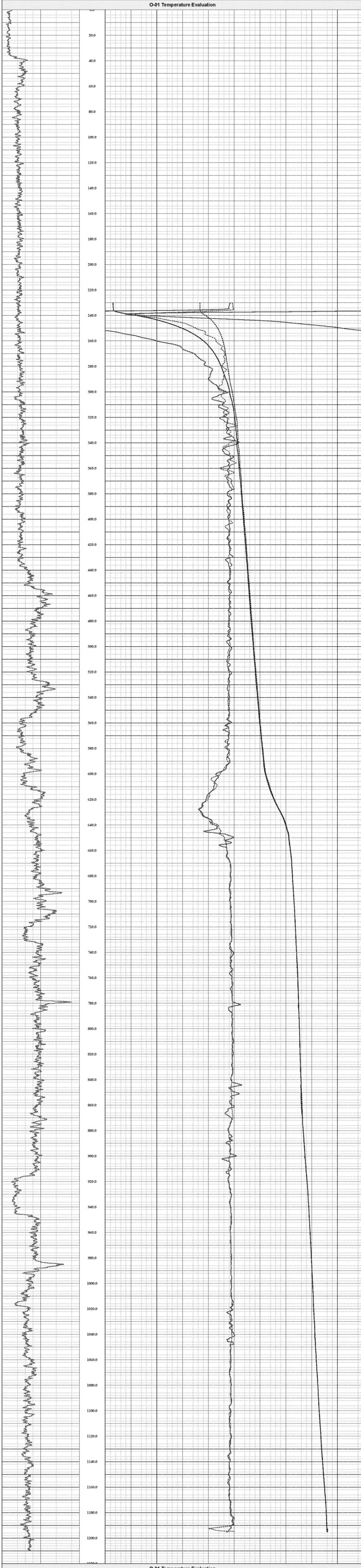
ATTACHMENT 1

Temperature Logs



Hole Information
 Well Name: O-01
 Survey Date: 02/08/19
 Elevation: 1479.164 Ft
 Northing (NAD83): 146272.7
 Easting (NAD83): 847765.5
 Shut In Time: 4 Hours 20 Min
 Base of Lowest USDW: 300 Ft
 Nat. Gamma
 D API 400

45	Deg F	85
-1	Deg F	1
45	Deg F	85
-1	Deg F	1

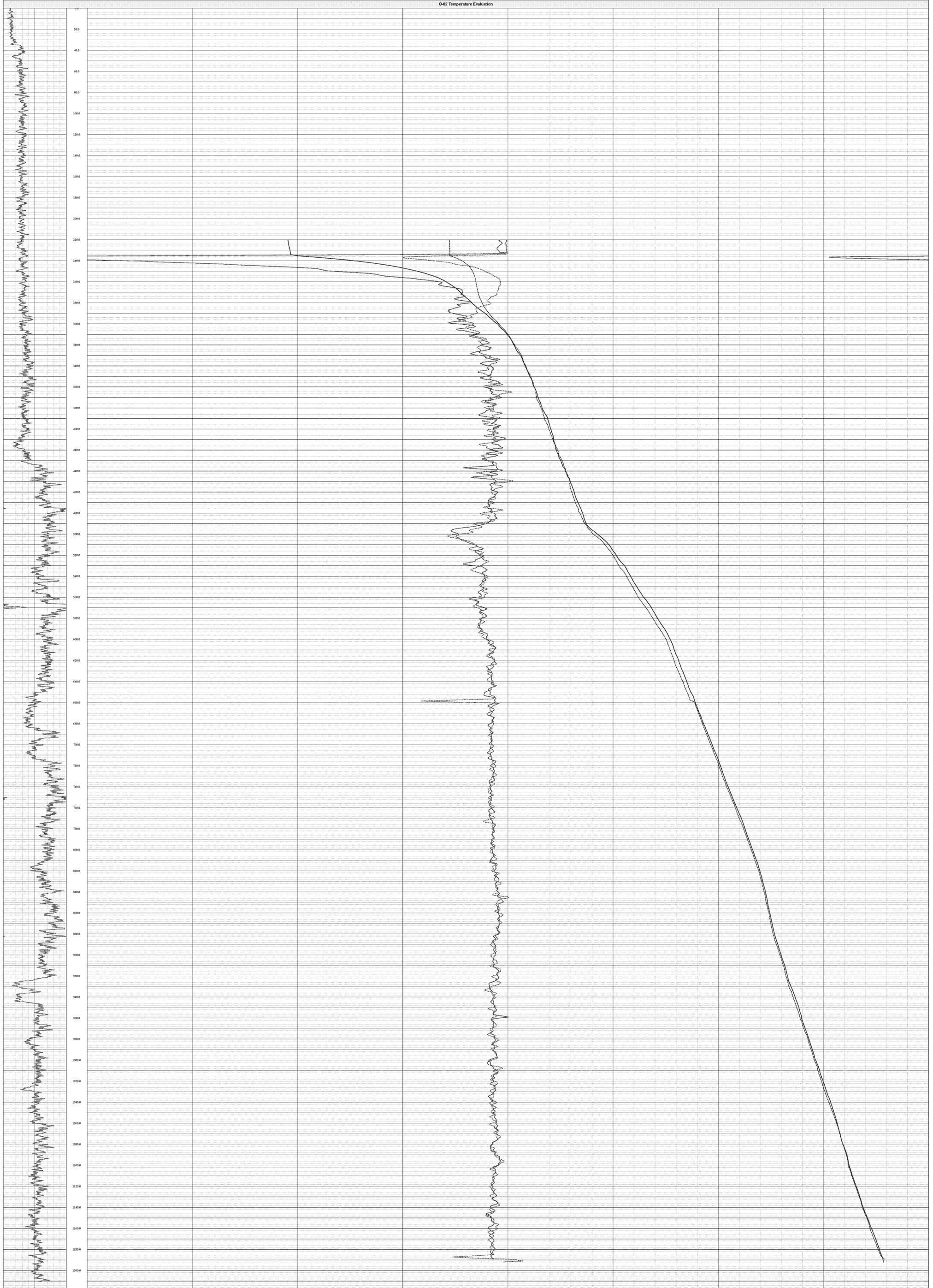


Hole Information
 Well Name: O-01
 Survey Date: 02/08/19
 Elevation: 1479.164 Ft
 Northing (NAD83): 146272.7
 Easting (NAD83): 847765.5
 Shut In Time: 4 Hours 20 Min
 Base of Lowest USDW: 300 Ft
 Nat. Gamma
 D API 400

45	Deg F	85
-1	Deg F	1
45	Deg F	85
-1	Deg F	1

Well Name: O-02
 Survey Date: 08/08/19
 Plotting Date: 08/08/19
 Plotting Time: 4:18:30 PM
 Base of Correlation: 10500.00 FT
 Well Gamma

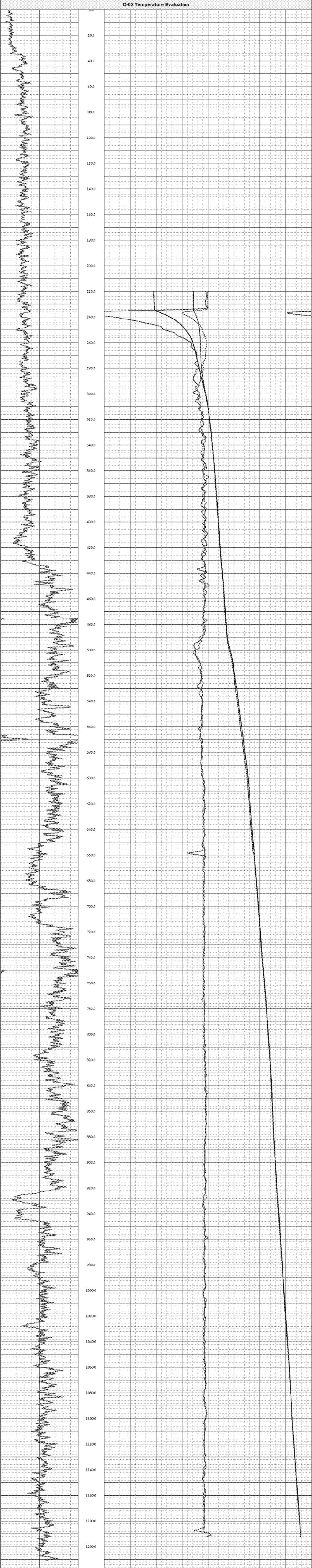
Depth (m)	Temp (C)	Temp (F)
0	22.1	71.8
1	22.1	71.8
50	22.1	71.8
100	22.1	71.8



Depth (m)	Temp (C)	Temp (F)
0	22.1	71.8
1	22.1	71.8
50	22.1	71.8
100	22.1	71.8

Hole Information
 Well Name: O-02
 Survey Date: 02/08/19
 Elevation: 1478.90 Ft
 Northing (NAD83): 746202.32
 Easting (NAD83): 847836.28
 Shut In Time: 4 Hours 50 Min
 Base of Lowest USDW: 300Ft
 Nat. Gamma
 0 API 200

Depth	50	Temperature (9:45 AM)	Deg F	90
1in 20ft	-1	2-Ft Diff. Temp. (9:45 AM)	Deg F	1
	50	Temperature (2:35 PM)	Deg F	90
	-1	2-Ft Diff. Temp. (2:35 PM)	Deg F	1



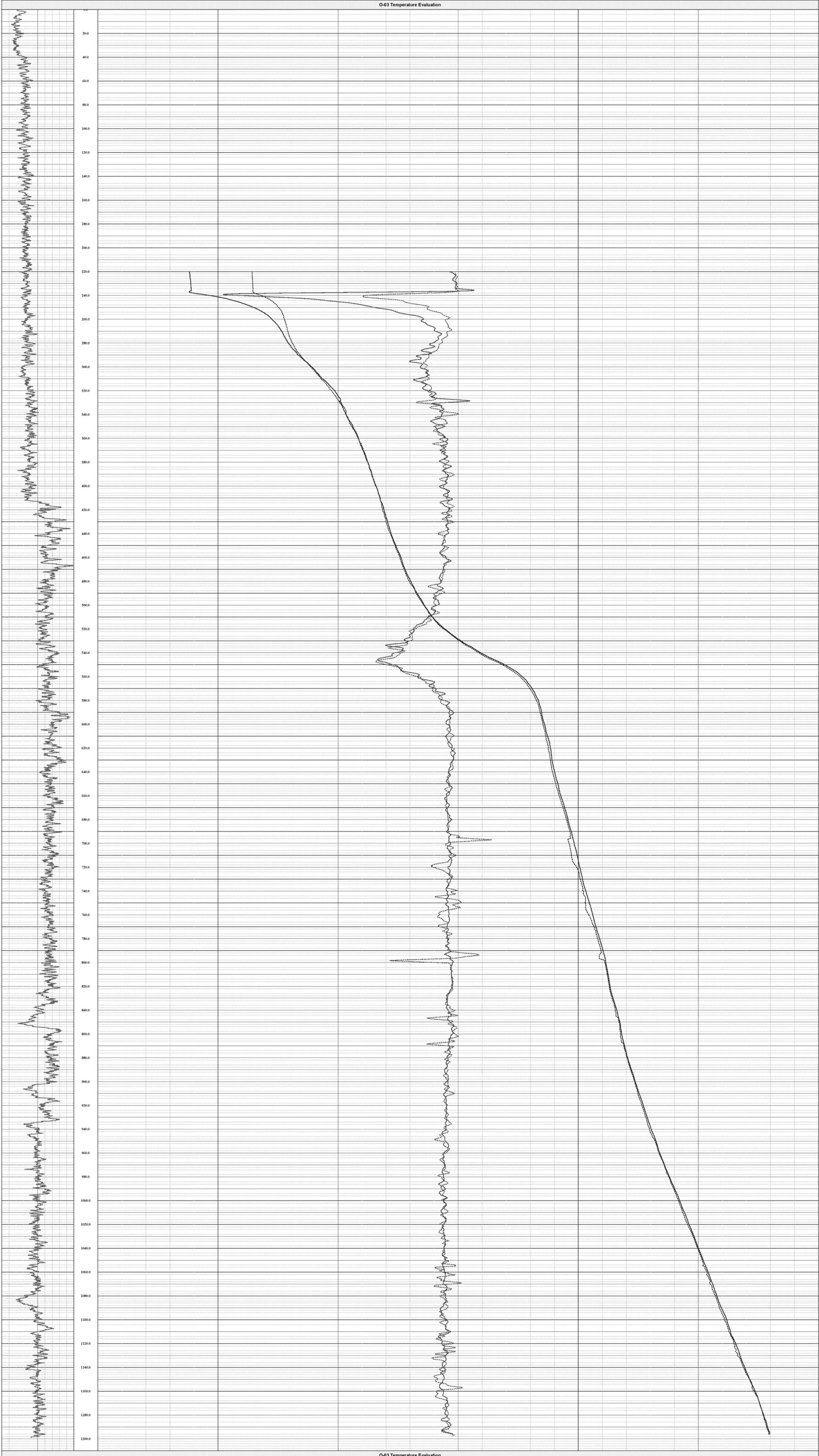
Hole Information
 Well Name: O-02
 Survey Date: 02/08/19
 Elevation: 1478.90 Ft
 Northing (NAD83): 746202.32
 Easting (NAD83): 847836.28
 Shut In Time: 4 Hours 50 Min
 Base of Lowest USDW: 300Ft
 Nat. Gamma
 0 API 200

Depth	50	Temperature (9:45 AM)	Deg F	90
1in 20ft	-1	2-Ft Diff. Temp. (9:45 AM)	Deg F	1
	50	Temperature (2:35 PM)	Deg F	90
	-1	2-Ft Diff. Temp. (2:35 PM)	Deg F	1

Well Name: O-03
 Survey Date: 02/08/19
 Elevation: 1475.07
 Northing (NAD83): 746032.02
 Easting (NAD83): 817931.42
 Shot in Time: 4 Hours 28 Min
 Base of Lowest USOW: 302 Ft
 Nat. Gamma

Depth
 147.20ft

80	Temperature (10:55 AM)	Deg F	1
-1	2-Ft Diff Temp (10:55 AM)	Deg F	1
80	Temperature (3:30 PM)	Deg F	1
-1	2-Ft Diff Temp (3:30 PM)	Deg F	1
80	Temperature (10:55 AM)	Deg F	1
-1	2-Ft Diff Temp (10:55 AM)	Deg F	1



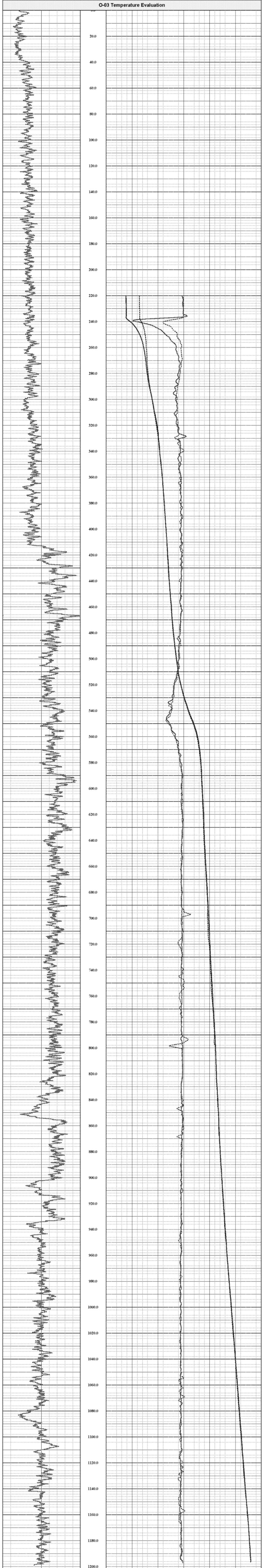
Well Name: O-03
 Survey Date: 02/08/19
 Elevation: 1475.07
 Northing (NAD83): 746032.02
 Easting (NAD83): 817931.42
 Shot in Time: 4 Hours 28 Min
 Base of Lowest USOW: 302 Ft
 Nat. Gamma

Depth
 147.20ft

80	Temperature (10:55 AM)	Deg F	1
-1	2-Ft Diff Temp (3:30 PM)	Deg F	1
80	Temperature (3:30 PM)	Deg F	1
-1	2-Ft Diff Temp (10:55 AM)	Deg F	1
80	Temperature (10:55 AM)	Deg F	1
-1	2-Ft Diff Temp (10:55 AM)	Deg F	1

Hole Information	
Well Name: O-03	
Survey Date: 02/08/19	
Elevation: 1478.07 Ft	
Northing (NAD83): 746053.02	
Easting (NAD83): 847931.42	
Shut In Time: 4 Hours 35 Min	
Base of Lowermost USDW: 302 Ft	
Nat. Gamma	
0	200

Temperature (10:55 AM)	
60	Deg F
2-Ft Diff. Temp. (10:55 AM)	
-1	Deg F
Temperature (3:30 PM)	
60	Deg F
2-Ft Diff. Temp. (3:30 PM)	
-1	Deg F
60	Deg F
Temperature (10:55 AM)	
60	Deg F

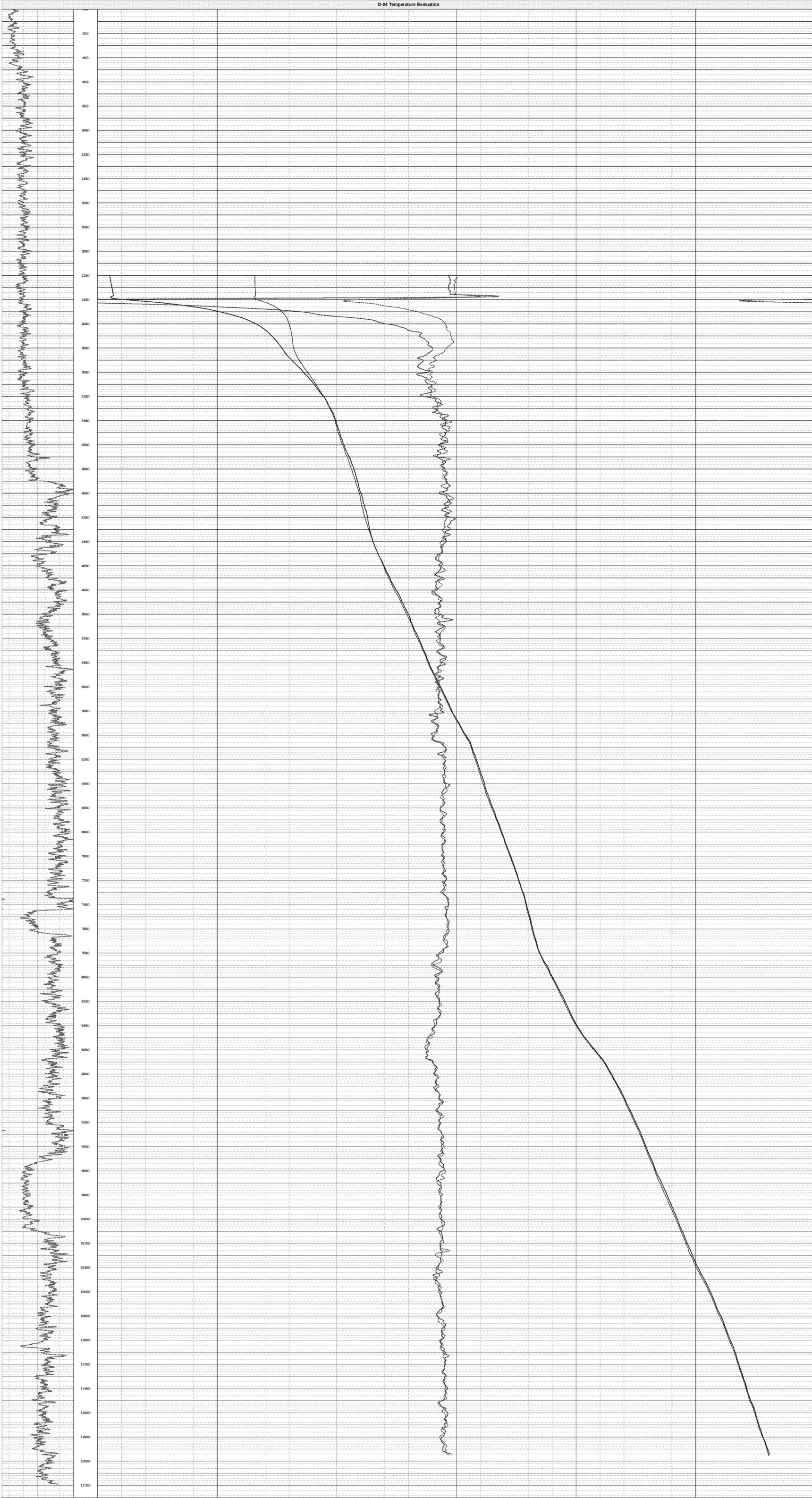


Hole Information	
Well Name: O-03	
Survey Date: 02/08/19	
Elevation: 1478.07 Ft	
Northing (NAD83): 746053.02	
Easting (NAD83): 847931.42	
Shut In Time: 4 Hours 35 Min	
Base of Lowermost USDW: 302 Ft	
Nat. Gamma	
0	200

Temperature (10:55 AM)	
60	Deg F
2-Ft Diff. Temp. (10:55 AM)	
-1	Deg F
Temperature (3:30 PM)	
60	Deg F
2-Ft Diff. Temp. (3:30 PM)	
-1	Deg F
60	Deg F
Temperature (10:55 AM)	
60	Deg F

Hole Information	
Well Name: O-04	
Survey Date: 02/08/19	
Elevation: 1476.34 Ft	
Northing (NAD83): 748883.60	
Easting (NAD83): 847024.06	
Shut In Time: 4 Hours 25 Min	
Base of Levelling: USGS, 302 Ft	
Net Gamma	
0	200

Depth	17:20F			Temperature (12:10 PM)			
60				Deg F			90
				2-Ft Diff. Temp. (12:10 PM)			
				Deg F			
				Temperature (4:35 PM)			
60				Deg F			90
				2-Ft Diff. Temp. (4:35 PM)			
				Deg F			

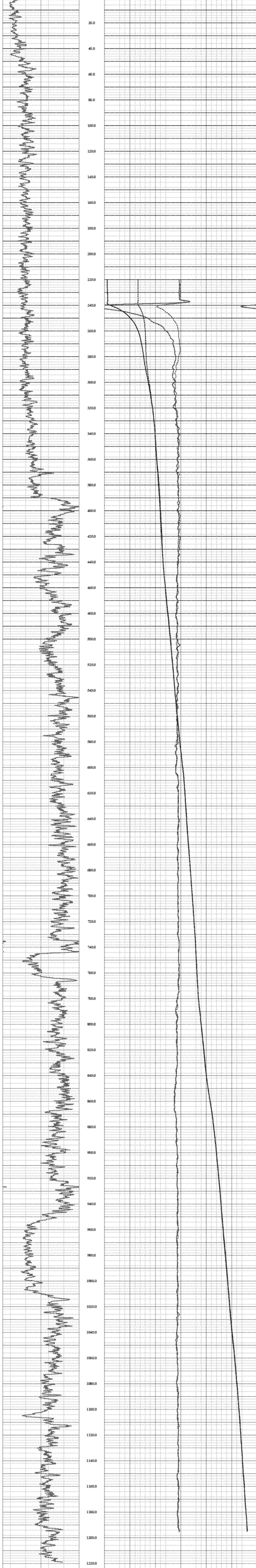


Hole Information	
Well Name: O-04	
Survey Date: 02/08/19	
Elevation: 1476.34 Ft	
Northing (NAD83): 748883.60	
Easting (NAD83): 847024.06	
Shut In Time: 4 Hours 25 Min	
Base of Levelling: USGS, 302 Ft	
Net Gamma	
0	200

Depth	17:20F			Temperature (12:10 PM)			
60				Deg F			90
				2-Ft Diff. Temp. (12:10 PM)			
				Deg F			
				Temperature (4:35 PM)			
60				Deg F			90
				2-Ft Diff. Temp. (4:35 PM)			
				Deg F			

Hole Information Well Name: O-04 Survey Date: 02/08/19 Elevation: 1476.94 Ft Northing (NAD83): 745988.60 Easting (NAD83): 847624.05 Shut In Time: 4 Hours 25 Min Base of Lowermost USDW: 302 Ft	Depth	Temperature (12:10 PM)	
	1in 20ft	60	Deg F 90
		2-Ft Diff. Temp. (12:10 PM)	
		-1	Deg F 1
		Temperature (4:35 PM)	
	60	Deg F 90	
	2-Ft Diff. Temp. (4:35 PM)		
	-1	Deg F 1	

Nat. Gamma		
0	API	200

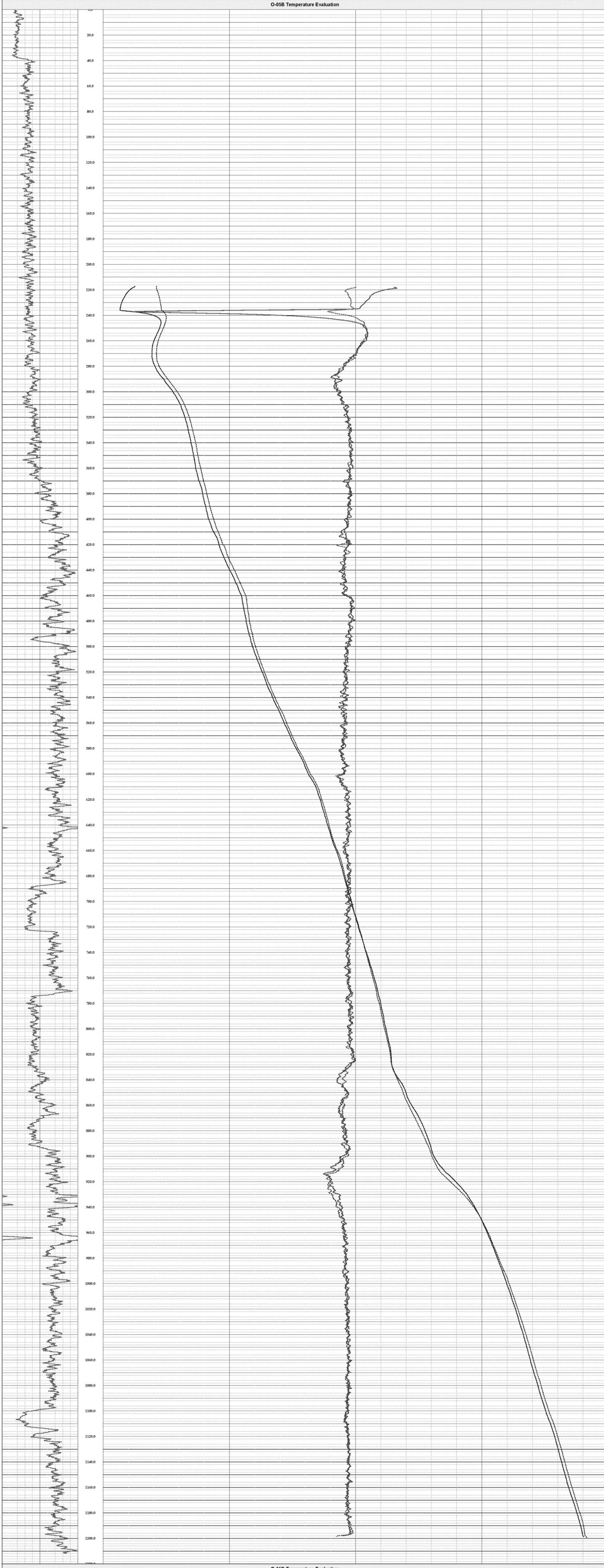


O-04 Temperature Evaluation		
0 API 200		
Nat. Gamma		
Base of Lowermost USDW: 302 Ft		
Shut In Time: 4 Hours 25 Min		
Easting (NAD83): 847624.05		
Northing (NAD83): 745988.60		
Elevation: 1476.94 Ft		
Survey Date: 02/08/19		
Well Name: O-04		

Hole Information Well Name: O-04 Survey Date: 02/08/19 Elevation: 1476.94 Ft Northing (NAD83): 745988.60 Easting (NAD83): 847624.05 Shut In Time: 4 Hours 25 Min Base of Lowermost USDW: 302 Ft	Depth	Temperature (12:10 PM)	
	1in 20ft	60	Deg F 90
		2-Ft Diff. Temp. (12:10 PM)	
		-1	Deg F 1
		Temperature (4:35 PM)	
	60	Deg F 90	
	2-Ft Diff. Temp. (4:35 PM)		
	-1	Deg F 1	

Hole Information	
Well Name: O-05B	
Survey Date: 02/12/19	
Elevation: 1476.80 Ft	
Northing (NAD83): 746042.90	
Eastng (NAD83): 847934.94	
Shut In Time: 4 Hours 25 Min	
Base of Lowest Set USDW: 303 Ft	
Nat. Gamma	

Depth	Temperature (1:00 PM)	
86	Deg F	86
-1	2-Ft Diff. Temp. (1:00 PM)	1
	Deg F	
86	Temperature (5:25 PM)	86
-1	Deg F	-1
	2-Ft Diff. Temp. (5:25 PM)	
	Deg F	
-1	Deg F	-1



Hole Information	
Well Name: O-05B	
Survey Date: 02/12/19	
Elevation: 1476.80 Ft	
Northing (NAD83): 746042.90	
Eastng (NAD83): 847934.94	
Shut In Time: 4 Hours 25 Min	
Base of Lowest Set USDW: 303 Ft	
Nat. Gamma	

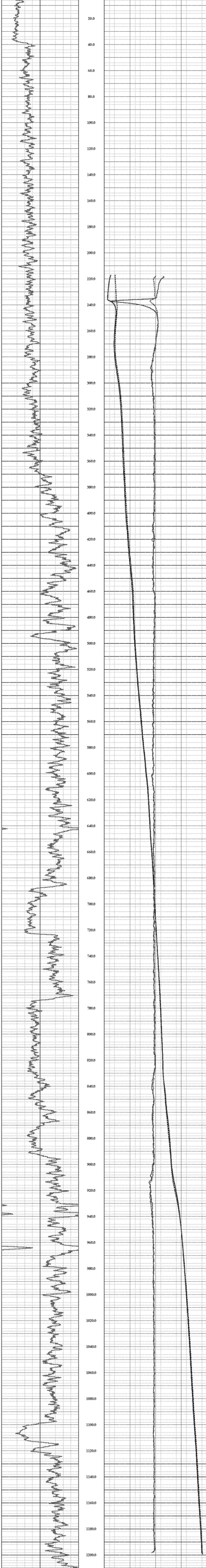
Depth	Temperature (1:00 PM)	
86	Deg F	86
-1	2-Ft Diff. Temp. (1:00 PM)	-1
	Deg F	
86	Temperature (5:25 PM)	86
-1	Deg F	-1
	2-Ft Diff. Temp. (5:25 PM)	
	Deg F	
-1	Deg F	-1

Hole Information	
Well Name: O-05B	
Survey Date: 02/12/19	
Elevation: 1476.50 Ft	
Northing (NAD83): 746042.90	
Easting (NAD83): 847534.94	
Shut In Time: 4 Hours 25 Mn	
Base of Lowest USDW: 303 Ft	
Nat. Gamma	
0	200

Depth	1in.20ft
86	

Temperature (1:00 PM)	
-1	Deg F
86	86
2-Ft Diff. Temp. (1:00 PM)	
-1	Deg F
86	86
Temperature (5:25 PM)	
-1	Deg F
86	86
2-Ft Diff. Temp. (5:25 PM)	
-1	Deg F
86	86

O-05B Temperature Evaluation



O-05B Temperature Evaluation

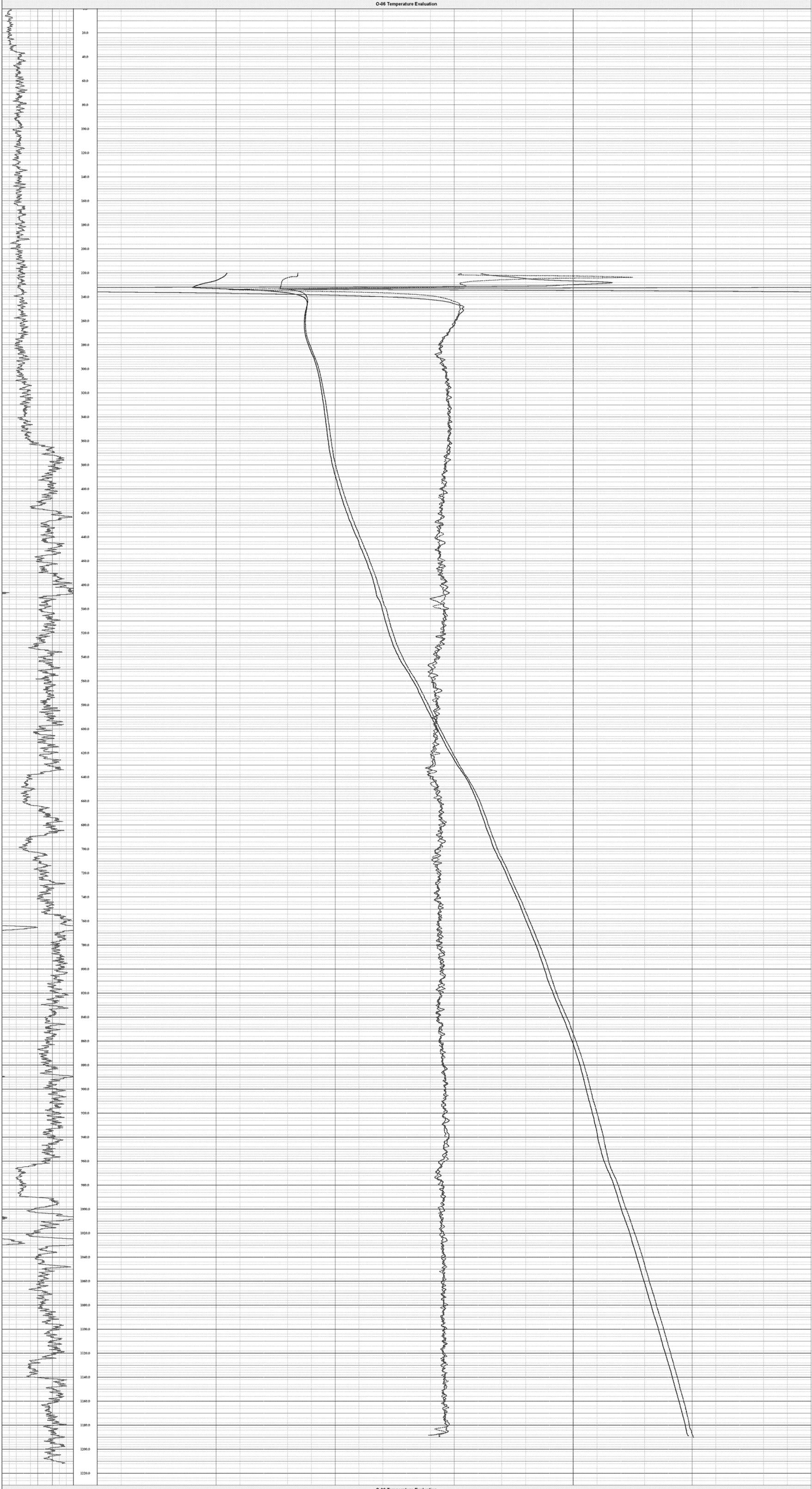
Hole Information	
Base of Lowest USDW: 303 Ft	
Shut In Time: 4 Hours 25 Mn	
Easting (NAD83): 847534.94	
Northing (NAD83): 746042.90	
Elevation: 1476.50 Ft	
Survey Date: 02/12/19	
Well Name: O-05B	
Nat. Gamma	
0	200

Depth	1in.20ft
86	

Temperature (1:00 PM)	
-1	Deg F
86	86
2-Ft Diff. Temp. (1:00 PM)	
-1	Deg F
86	86
Temperature (5:25 PM)	
-1	Deg F
86	86
2-Ft Diff. Temp. (5:25 PM)	
-1	Deg F
86	86

Well Name: O-06
 Survey Date: 02-12-19
 Elevation: 1477.70 FT
 Northing (NAD83): 746201.81
 Easting (NAD83): 847652.01
 Shot in Time: 4 Hours 25 Min
 Base of Lowest UEDW: 258 FT
 Nat. Gamma
 API

Depth (in 20')	Temperature (11:50 AM)	2-Ft Diff. Temp. (11:50 AM)
0	50	1
20	50	1
40	50	1
60	50	1
80	50	1
100	50	1
120	50	1
140	50	1
160	50	1
180	50	1
200	50	1
220	50	1
240	50	1
260	50	1
280	50	1
300	50	1
320	50	1
340	50	1
360	50	1
380	50	1
400	50	1
420	50	1
440	50	1
460	50	1
480	50	1
500	50	1
520	50	1
540	50	1
560	50	1
580	50	1
600	50	1
620	50	1
640	50	1
660	50	1
680	50	1
700	50	1
720	50	1
740	50	1
760	50	1
780	50	1
800	50	1
820	50	1
840	50	1
860	50	1
880	50	1
900	50	1
920	50	1
940	50	1
960	50	1
980	50	1
1000	50	1
1020	50	1
1040	50	1
1060	50	1
1080	50	1
1100	50	1
1120	50	1
1140	50	1
1160	50	1
1180	50	1
1200	50	1
1220	50	1



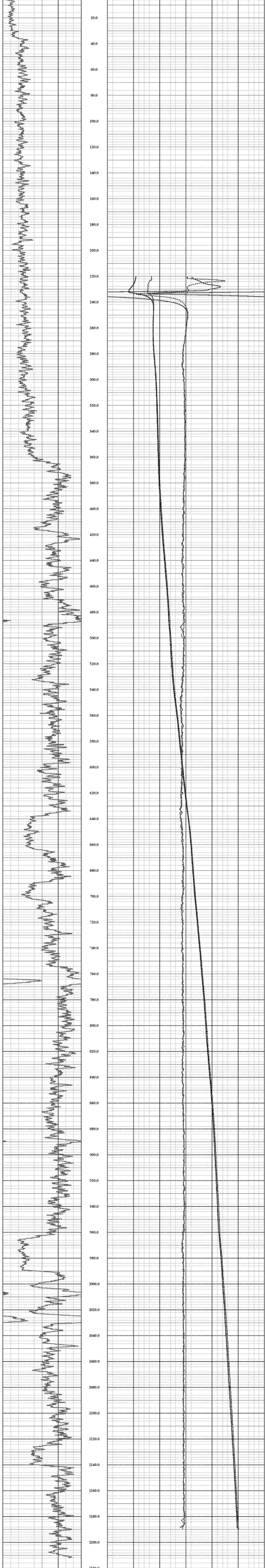
Well Name: O-06
 Survey Date: 02-12-19
 Elevation: 1477.70 FT
 Northing (NAD83): 746201.81
 Easting (NAD83): 847652.01
 Shot in Time: 4 Hours 25 Min
 Base of Lowest UEDW: 258 FT
 Nat. Gamma
 API

Depth (in 20')	Temperature (11:50 AM)	2-Ft Diff. Temp. (11:50 AM)
0	50	1
20	50	1
40	50	1
60	50	1
80	50	1
100	50	1
120	50	1
140	50	1
160	50	1
180	50	1
200	50	1
220	50	1
240	50	1
260	50	1
280	50	1
300	50	1
320	50	1
340	50	1
360	50	1
380	50	1
400	50	1
420	50	1
440	50	1
460	50	1
480	50	1
500	50	1
520	50	1
540	50	1
560	50	1
580	50	1
600	50	1
620	50	1
640	50	1
660	50	1
680	50	1
700	50	1
720	50	1
740	50	1
760	50	1
780	50	1
800	50	1
820	50	1
840	50	1
860	50	1
880	50	1
900	50	1
920	50	1
940	50	1
960	50	1
980	50	1
1000	50	1
1020	50	1
1040	50	1
1060	50	1
1080	50	1
1100	50	1
1120	50	1
1140	50	1
1160	50	1
1180	50	1
1200	50	1
1220	50	1

Hole Information	
Well Name: O-06	
Survey Date: 02/12/19	
Elevation: 1477.70 Ft	
Northing (NAD83): 746201.81	
Easting (NAD83): 847553.01	
Shut In Time: 4 Hours 25 Min	
Base of Lowest USDW: 296 Ft	
Nat. Gamma	
0	200

Depth	1 in 20ft	60	Deg F	90
		2-Ft Diff. Temp. (11:50 AM)		
		-1	Deg F	1
		Temperature (4:15 PM)		
		60	Deg F	90
		2-Ft Diff. Temp. (4:15 PM)		
		-1	Deg F	1

O-06 Temperature Evaluation



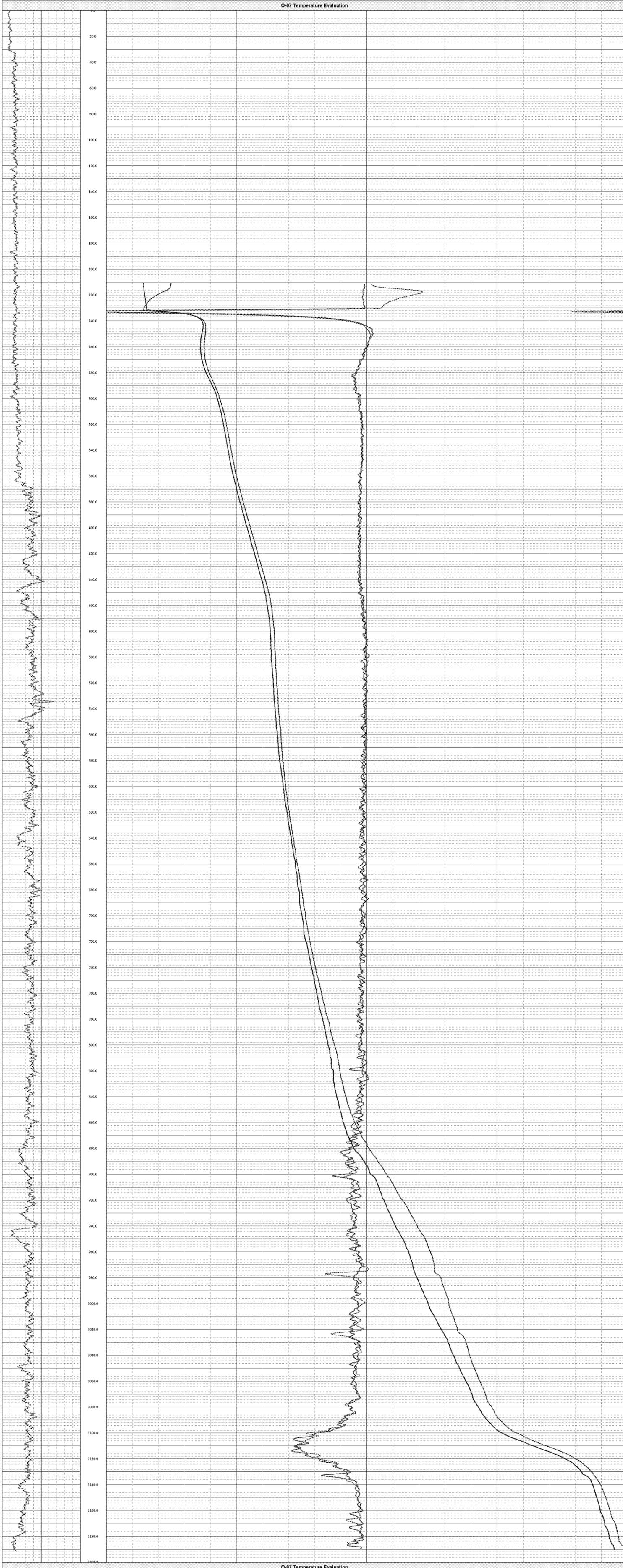
O-06 Temperature Evaluation

0		API	200	
Nat. Gamma				
Base of Lowest USDW: 296 Ft				
Shut In Time: 4 Hours 25 Min				
Easting (NAD83): 847553.01				
Northing (NAD83): 746201.81				
Elevation: 1477.70 Ft				
Survey Date: 02/12/19				
Well Name: O-06				

1	Deg F	1
2-Ft Diff. Temp. (4:15 PM)		
60	Deg F	90
Temperature (4:15 PM)		
-1	Deg F	1
2-Ft Diff. Temp. (11:50 AM)		
60	Deg F	90

Hole Information
 Well Name: O-07
 Survey Date: 02/12/19
 Elevation: 1478.14 Ft
 Northing (NAD83): 746270.61
 Easting (NAD83): 847623.87
 Shut In Time: 4 Hours 28 Min
 Base of Lewemost USDW: 301 Ft
 Nat. Gamma

Depth In: 20ft	Temperature (10:35 AM) Deg F
85	2-Ft Diff. Temp. (10:35 AM) Deg F
-1	Temperature (3:00 PM) Deg F
85	2-Ft Diff. Temp. (3:00 PM) Deg F
-1	Temperature (10:35 AM) Deg F



Hole Information
 Well Name: O-07
 Survey Date: 02/12/19
 Elevation: 1478.14 Ft
 Northing (NAD83): 746270.61
 Easting (NAD83): 847623.87
 Shut In Time: 4 Hours 28 Min
 Base of Lewemost USDW: 301 Ft
 Nat. Gamma

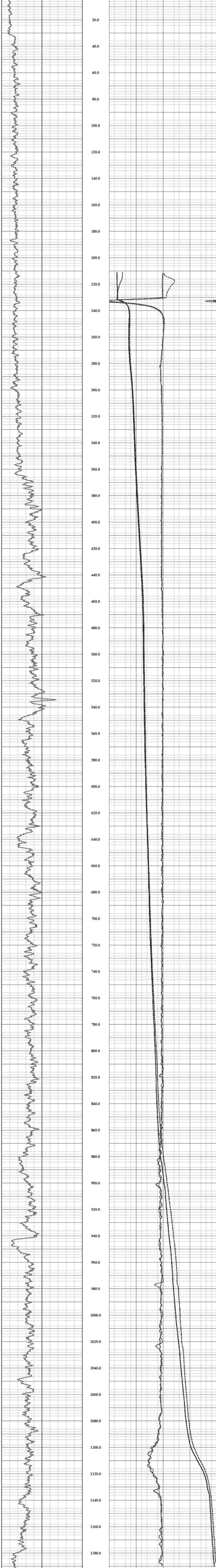
Depth In: 20ft	Temperature (10:35 AM) Deg F
85	2-Ft Diff. Temp. (10:35 AM) Deg F
-1	Temperature (3:00 PM) Deg F
85	2-Ft Diff. Temp. (3:00 PM) Deg F
-1	Temperature (10:35 AM) Deg F

Hole Information
 Well Name: O-07
 Survey Date: 02/12/19
 Elevation: 1478.14 Ft
 Northing (NAD83): 746270.61
 Easting (NAD83): 847623.87
 Shut In Time: 4 Hours 25 Min
 Base of Lowest USDW: 301 Ft
 Nat. Gamma

Depth
 1in:20ft

85	Deg F	85
2-Ft Diff. Temp. (10:35 AM)		
-1	Deg F	1
Temperature (3:00 PM)		
85	Deg F	85
2-Ft Diff. Temp. (3:00 PM)		
-1	Deg F	1

O-07 Temperature Evaluation



O-07 Temperature Evaluation

Hole Information
 Base of Lowest USDW: 301 Ft
 Shut In Time: 4 Hours 25 Min
 Easting (NAD83): 847623.87
 Northing (NAD83): 746270.61
 Elevation: 1478.14 Ft
 Survey Date: 02/12/19
 Well Name: O-07

Depth
 1in:20ft

85	Deg F	85
2-Ft Diff. Temp. (3:00 PM)		
-1	Deg F	1
Temperature (10:35 AM)		
85	Deg F	85